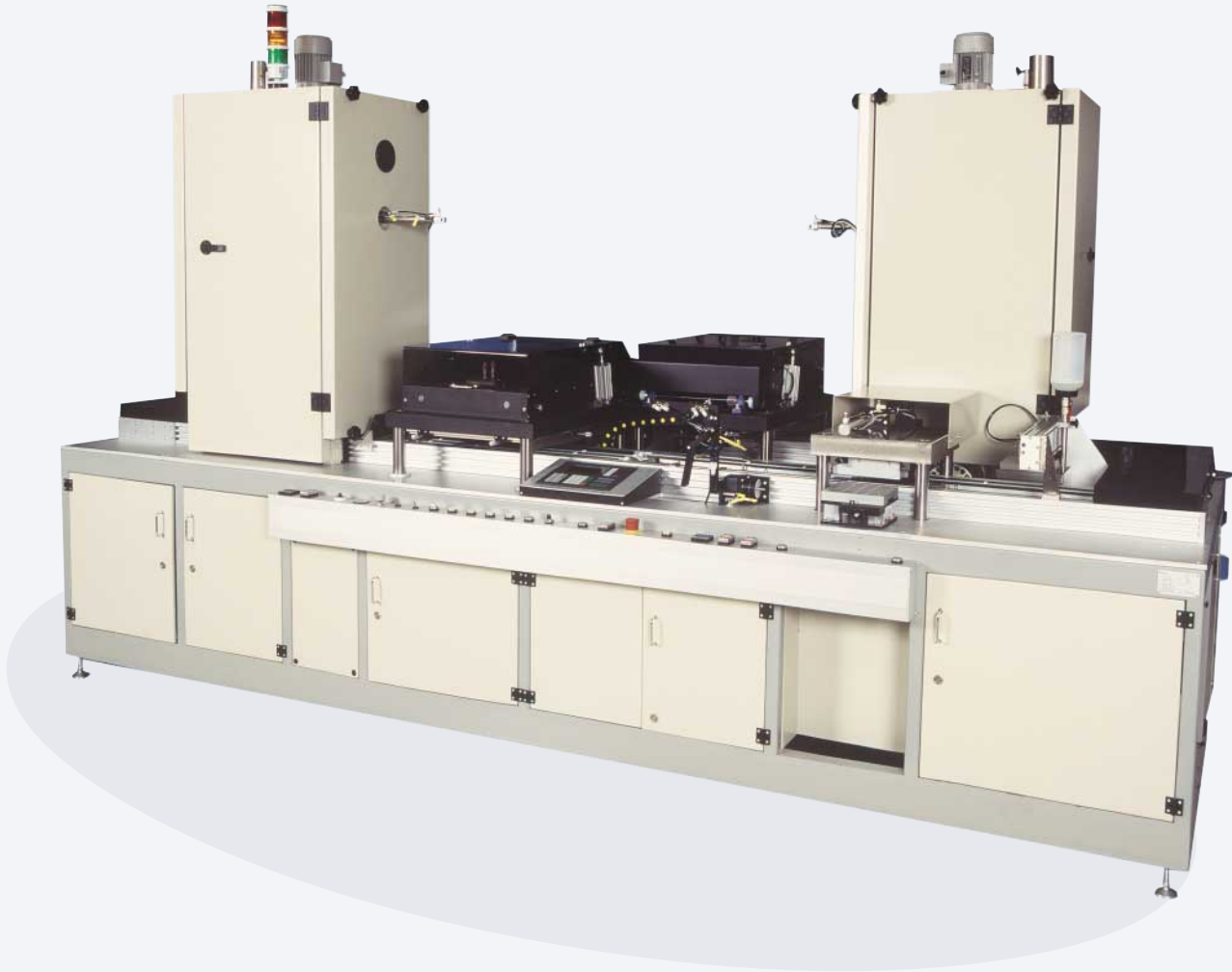


# FULLY AUTOMATIC MULTILAYER INDUCTOR MAKER

## FSP-10



- Dry tape gives superior stacking at high layer counts
- Uses carrier-based tape technology, automatically removes carrier film
- Positions punched sheets automatically, accurately
- Fills vias using a long life metal stencil
- Special scraper technology ensures excellent via fill
- High productivity = low cost per component
- Fast changing of screens assisted by a pneumatic system

**Fills tape vias/Automates multilayer substrate manufacturing**

The FSP 10 marks a true innovation in the passive component industry. The automatic multi-layer inductor maker uses tape technology, with automatic removal of carrier films.

A patented system accurately positions punched sheets of tape and fills the vias on the stack. High process yields and precision capabilities for small components make the FSP 10 the best value on the market today.

The machine can automatically load and unload up to 156 blocks, which travel around on the carousel. Sheets are picked up from the sheet reservoir, which contains sheets with guidance holes.

Vias are filled on the stack ensuring excellent electrical contact with underlying electric circuits. A metal stencil is

placed with precision accuracy on top of the stack. The via fill paste is transferred into the vias by using a specially designed scraper. After drying of the vias, the circuit can be printed on the tape surface. Screen changing on the FSP 10 is rapid and precise, due to a pneumatic system that fixes the screen to the printer. For inductors A-B shifting is done automatically. A high-speed belt transporter results in a low cycle time. As an option, a tape edge glueing device can be added to avoid any movement of the sheets during transportation between positioning and the press. If your applications require a new feature to be added onto the machine, we will design and build the machine to accommodate this feature, working closely with you to make sure your performance expectations are met.

## Fully Automatic Multilayer Inductor Maker FSP-10

### Typical specifications<sup>1</sup>



Palette size:	170 x 180 mm or 6.7 x 7.0 inches
Print area:	155 x 155 mm or 6 x 6 inches
Number of palettes:	1- 156 pieces
Palette transport:	high-speed belt
Cycle time:	typically 10 sec. (palette to palette) using sheet dispenser
Via fill printer:	metal stencil with scraper
Time to change screen:	1 min.
Squeegee speed:	50 – 300 mm/s or 2 –12 inches/sec.
Snap-off:	max. 10 mm, adjustment with 1 micron or 1/25 mil accuracy
Stacker press force:	up to 345 kN or 76,000 lbf.
Stacker press:	heated up to 120 °C
Dryer:	circulating air heated up to 100 °C
Drying time:	typical 5 minutes, adjustable
Clean air:	tracks fully covered for clean room application
Safety:	equipment complies with US and CE safety regulations
Dimensions:	Length 2,745 mm or 108 inches
	Width 1,650 mm or 65 inches
	Height 2,340 mm or 92 inches
	Weight approx. 2,500 kg or 5,500 lbs.

### Options

- Cassette loading system
- Automatic ink dispensing
- Sheet edge glue applicator
- Automatic sheet reservoir changer
- Reel feeding systems for carrier foil based ceramic tape
- Up to 3 printers can be installed
- Up to 2 tape feeders can be mounted (coversheet dispensing)
- Off-line automated coversheet stacker
- Automatic visual inspection systems: electrode print quality
- Custom designs to meet special requests for your technology

1) Because our equipment is customized for specific requirements, specifications given are subject to change



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